1.3 (String) Methods

Because you can't depend on how smart somebody is

Programming 1/2

Code Starter Snippet:

`notes-1-3-stringmethods.py`

Outline

1. Question
2. Donuts
3. String Methods
4. `in`

Question

- **What does this evaluate to?**
- `True` or `False`?
- `"rainy" == "Rainy"`
- `"rainy" == "rainy!"`

People are not smart?

I said earlier on that you can't depend on how smart somebody is.

When we make a solution using programming, whether it be a tool to use, or a game to play, people aren't really going to cooperate in the exact same way we want them too.

An example

```
weather = input("What's the weather like?")

if weather == "rainy":
    ...
else:
    print("I see...")
```

How do we deal with people?

> Work smart, not hard.
>
> - *Ubial, probably*

- We can anticipate how people are going to interact with our code.
- These things also come up during testing.

Robust Code

Robust means not easily breakable.

We want to make our code donut proof.

We can use **string methods**.

Consider this code

```
...

if weather == "rainy":
    ...
```

Methods

Methods are **functions** that work on *objects*.

Note: We're not going to talk about objects right now.

```
<some object>.<method name>()
```

(String) Methods Example

```
...

if weather.lower() == "rainy":
    ...
```

`<string>.lower()` - lower cases all the letters

Useful Methods

`.strip()` - remove whitespace characters off left and right

`.strip("a")` - removes 'a' off the left and right

`.split(" ")` - splits a string into a list

`.upper()` - uppercase all letters

`.lower()` - same but lowercase

`.title()` - capitalize all first characters

Examples

```
# Ask the user for their name
name = input("What's your name? ")

# Remove whitespace from the str
name = name.strip()

# Print the output
print(f"hello, {name}")
```

```
# Ask the user for their name
name = input("What's your name? ")

# Remove whitespace from the str
name = name.strip()

# Capitalize the first letter of each word
name = name.title()

# Print the output
print(f"hello, {name}")
```

```
# Ask the user for their name
name = input("What's your name? ")

# Remove whitespace from the str and
#   capitalize the first letter of each word
name = name.strip().title()

# Print the output
print(f"hello, {name}")
```

```
# Ask the user for their name,
#   remove whitespace from the str
#   capitalize the first letter of each word
name = input("What's your name? ").strip().title()

# Print the output
print(f"hello, {name}")
```

More String Methods

Python Documentation

Your Turn - McDoBot

Write a McDonald's bot that asks if you want fries with your meal.
Call it `work-mcdobot.py`.

It should accept `Yes/yes` or `No/no` as inputs, and reply appropriately depending on the answer.

If the user inputs anything else, it should repeat back their answer and say that it does not understand.

McDoBot Examples

```
~/B - Programming/ python3 work-mcdbot.py
Would you like fries with your meal? (Yes/No) YES
Here's your meal with fries!
~/B - Programming/ python3 work-mcdbot.py
Would you like fries with your meal? (Yes/No) yes
Here's your meal with fries!
~/B - Programming/ python3 work-mcdbot.py
Would you like fries with your meal? (Yes/No) no
Here's your meal without fries!
~/B - Programming/ python3 work-mcdbot.py
Would you like fries with your meal? (Yes/No) asdfsdf
Sorry. I don't understand asdfsdf.
~/B - Programming/
```